#### **NATURAL GAS FORUM**



# Natural Gas Purchasing Survey Review

Seventeen (17) companies responded to RMI's Natural Gas Survey. The responding systems serve a combined total of 18,000,000 customers.

#### **Annual Natural Gas Purchase**

Approximate Total Annual Natural Gas Purchase of Utilities Surveyed: 2,174 BCF

Approximate U.S. Residential & Commercial Natural Gas Consumption in 2005: 7,893 BCF

Residential 4,837 BCF Commercial 3,056 BCF

### 2006 POWER UTILITY GAS BUYING SURVEY RESULTS

Eight (8) companies responded to RMI's Survey.

The responding systems serve a combined total of 11,000,000 customers.

### **Annual Power Utility Natural Gas Purchase**

Approximate Total Annual Natural Gas Purchase of Power Utilities Surveyed: 338 BCF

Approximate U.S. Natural Gas Consumption for Electricity Generation in 2005: 5,796 BCF

What percentage of the forecasted load can you hedge in each of the following time periods according to your policy and hedge plan?

TIME PERIOD	% of respondents Authorized to Hedge in this period	AVG % HEDGE VOLUME ALLOWANCE
0-6 Months	100%	62%
6-12 Months	100%	44%
12-18 Months	77%	30%
18-24 Months	54%	25%
Year 3	15%	15%
Year 4	8%	10%
Year 5	8%	10%

If authorized to hedge in the time period, what percentage of forecasted load is currently hedged?

TIME PERIOD	AVG % CURRENTLY HEDGED
0-6 Months	53%
6-12 Months	23%
12-18 Months	9%
18-24 Months	2%
Year 3	0%
Year 4	0%
Year 5	0%

### 2006 POWER UTILITY GAS BUYING SURVEY RESULTS

What percentage of the forecasted load can you hedge in each of the following time periods according to your policy and hedge plan?

% OF RESPONDENTS AUTHORIZED TO HEDGE IN THIS PERIOD	AVG % HEDGE VOLUME ALLOWANCE
100%	85%
100%	82%
100%	69%
88%	66%
75%	49%
50%	41%
50%	30%
	AUTHORIZED TO HEDGE IN THIS PERIOD  100% 100% 100% 88% 75% 50%

If authorized to hedge in the time period, what percentage of forecasted load is currently hedged?

TIME PERIOD	AVG % CURRENTLY HEDGED
0-6 Months	79%
6-12 Months	43%
12-18 Months	26%
18-24 Months	30%
Year 3	24%
Year 4	16%
Year 5	9%

Which tools has your organization been authorized to execute in the physical or financial markets for natural gas procurement? (Choose all that apply)

Financial or Physical Fixed  Purchase of Calls (Physical or Financial)  Purchase of Puts (Physical or Financial)  65  Purchase of Collars (Physical or Financial)	
Purchase of Puts (Physical or Financial) 65	0%
	%
Purchase of Collars (Physical or Financial) 65	%
	%
Structured Option Strategies (three way, collars, puts, rolling puts, etc.)  47	%

How do you think your hedging program handled the volatile period from last September to the present? Any comments? Any feedback from the public service commission?

Positive to Very Positive - 76%
Positive but Needed Tweaking - 12%
Just Started Program - 12%

#### **Selected Comments**

#### **Veterans**

- "Gas costs were more stable and at lower levels than index. We were able to limit customer rate increases to under 17%."
- "Some of the summer collars provided protection from price run-up however the winter collars were struck on the put side due to the warmer than normal winter."
- "PS Commission complained that we should be hedged 100%. Our response is the price can go either way."
- "Our hedging plan was sound and our execution was complete. We mitigated price volatility. No feedback from PSC."

#### **Newcomers**

- "Program is too short-term to handle it well. Longer-term hedges in place would have protected us much more."
- "I would have thought with the high prices that we would have had more protection."

## Have you made adjustments in your risk management program in the last year?

No-38% Yes-62%

#### Selected Comments

- "Added the ability to execute the 3 way structured product and extended term that physical and financial products can be purchased."
- "Switch to a more cost averaging method."
- "Increased option budget."

Do you communicate the details of your hedge plan and any changes made to the plan to your state commission?

No-**25**% Yes-**75**%

#### **Selected Comments**

- "We brief them at a high level
- "Through annual PGA reconciliation data requests."

Does your commission pre-approve your program or any changes to your program?

No-**75**% Yes-**25**%

#### **Selected Comment**

• "In South Carolina we are pre-approved. No pre-approval in North Carolina.

### COMPONENTS FOR FORMULATING MARKET VIEW

### Fundamental Analysis

Includes supply/demand, weather, storage, and economic drivers

### Technical Analysis

Includes charting, moving averages, and market concentration

### MARKET VIEW

## Historical Analysis

An anchor to define "value" over a long period of time

Fundamental & Technical Analysis could be considered subjective while Historical Analysis is based on more objective information

Which of the following do you utilize in determining when and how to buy?

TOOLS	% of Respondents
Private Price Forecasts	38%
Dollar Cost Averaging	69%
Internal Price Forecasts	25%
Historic Pricing	81%
Budget Numbers	44%
Technical Analysis	56%
Fundamentals/Weather	63%
Spark Spread	0%
Other	19%

On a scale of 1-10 (1=least important; 10=most important), please check the benchmarks that your organization uses to evaluate your hedge program's success.

BENCHMARKS	AVG
Portfolio Diversification	5
Historical Pricing	4.3
Nothing Yet	4.4
Market Price	6.9
Budget Price	4.8
Volatility Measure	7.7
Other Utilities' Prices	5.8

### 2006 INDUSTRIAL/COMMERCIAL SURVEY RESULTS

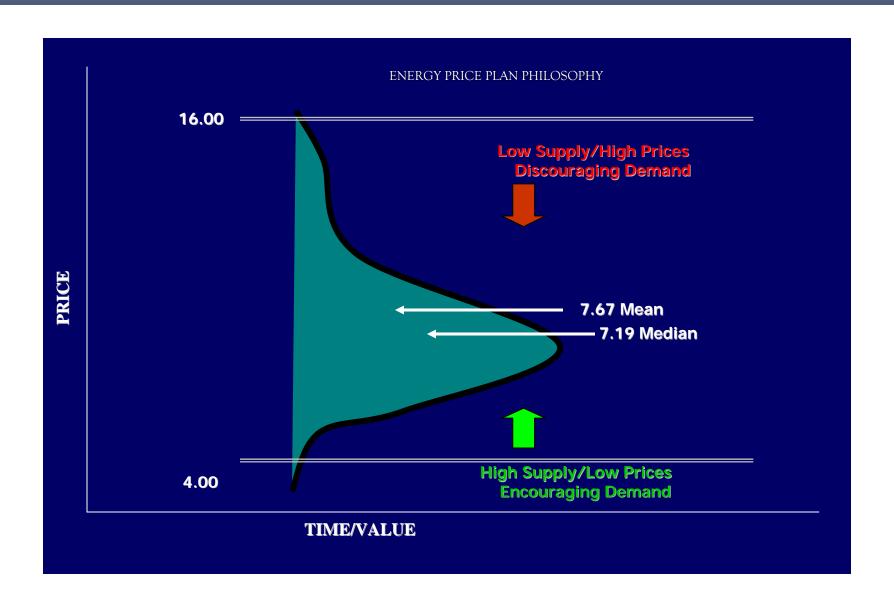
Which of the following do you utilize in determining when and how to buy?

TOOLS			of ndents	
Private Price For Budgets	orecasts/	100%		
Dollar Cost Ave	raging	33%		
Internal Price F	orecasts	50%	50%	
Historic Pricing		50%		
Technical Analy	ysis	0%		
Fundamentals/	Weather	17%		

On a scale of 1-10 (1=least important; 10=most important), please check the benchmarks that your organization uses to evaluate your procurement program's success.

BENCHMARKS	AVG
Portfolio Diversification	4.5
Historical Pricing	8
Nothing Yet	
Market Price	7
Budget Price	9
Volatility Measure	5
Other Utilities' Prices	

### NATURAL GAS HISTORICAL PRICE DISTRIBUTION



### PRICE & TIME TRIGGER METHODOLOGY

NATURAL GAS - NYMEX							
ANNUAL SUMMER STRIP WINTER STRIP							
Mean	7.67	7.07	8.57				
Median	7.19	6.90	7.98				
90% - MAX	10.53 - 15.59	8.81 - 14.17	12.75 - 15.59				
80% - 90%	8.83 - 10.53	8.05 - 8.81	10.22 - 12.75				
70% - 80%	8.29 - 8.83	7.47 - 8.05	9.14 - 10.22				
60% - 70%	7.65 - 8.29	7.15 - 7.47	8.49 - 9.14				
50% - 60%	7.19 - 7.65	6.90 - 7.15	7.98 - 8.49				
40% - 50%	6.86 - 7.19	6.62 - 6.90	7.65 - 7.98				
30% - 40%	6.48 - 6.86	6.35 - 6.62	7.02 - 7.65				
20% - 30%	6.10 - 6.48	6.06 - 6.35	6.42 - 7.02				
10% - 20%	5.51 - 6.10	5.12 - 6.06	5.81 - 6.42				
MIN - 10%	3.85 - 5.51	3.85 - 5.12	5.14 - 5.81				

Price - Driven Triggers					
Winter Decile Target	Year 1 Volume %	Year 2 Volume %	Year 3 Volume %	Year 4 Volume %	Year 5 Volume %
50 <sup>th</sup> % -	30%	20%	10%		
40 <sup>th</sup> % -	40%	30%	20%	10%	
30 <sup>th</sup> % -	50%	40%	30%	20%	10%
20 <sup>th</sup> % -	60%	50%	40%	30%	20%
10 <sup>th</sup> % -	70%	60%	50%	40%	30%

<sup>\*</sup> Percentages for triggers are cumulative

	Time - Driven Triggers				
12-9 Months Prior to Winter	9-6 Months Prior to Winter	6-3 Months Prior to Winter	3-0 Months Prior to Winter		
10%	20%	35%	50%		

### GUESS THE GAS – 2006 RESPONSES FOR 2007 SETTLE

	High	Low	Average	Median
	Guess	Guess	Guess	Guess
February 2007	18.53	5.275	9.32	9.25

